

Notice of Allowability

Application No.

10/825,498

Examiner

Andrew T. Piziali

Applicant(s)

KARAYIANNI ET AL.

Art Unit

1771

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to 7/7/2006.
2. ☒ The allowed claim(s) is/are 1-15, 17-22 and 39.
3. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) ☐ All b) ☐ Some* c) ☐ None of the:
 1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

* Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
 5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
 - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
 - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
 - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

1. ☐ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3. ☐ Information Disclosure Statements (PTO-1449 or PTO/SB/08), Paper No./Mail Date _____
4. ☐ Examiner's Comment Regarding Requirement for Deposit of Biological Material
5. ☐ Notice of Informal Patent Application (PTO-152)
6. ☐ Interview Summary (PTO-413), Paper No./Mail Date _____
7. ☒ Examiner's Amendment/Comment
8. ☒ Examiner's Statement of Reasons for Allowance
9. ☐ Other _____

977 7/26/06
ANDREW T. PIZIALI
PATENT EXAMINER

EXAMINER'S AMENDMENT

1. An extension of time under 37 CFR 1.136(a) is required in order to make an examiner's amendment that places this application in condition for allowance. During a telephone conversation conducted on 7/26/2006, Matthew Mason requested an extension of time for 1 MONTH and authorized the Director to charge Deposit Account No. 22-0185 the required fee of \$120.00 for this extension and authorized the following examiner's amendment. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.

Amend the application as follows:

IN THE ABSTRACT:

Replace the abstract with the following abstract:

Provided is an electrically conductive elastic composite yarn having an elastic member that is surrounded by at least one conductive covering filament. The conductive covering filament has a length that is greater than the drafted length of the elastic member such that substantially all of an elongating stress imposed on the composite yarn is carried by the elastic member. The elastic composite yarn may further include an optional stress-bearing member surrounding the elastic member and the conductive covering filament.

IN THE DRAWINGS:

Delete page 17 of the drawings.

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IN THE CLAIMS:

Cancel claims 16, 23-38 and 40.

Amend claims 1, 17-20 and 39 as follows:

Claim 1: An electrically conductive elastic composite yarn comprising: at least one elastic member having a relaxed unit length L and a drafted length of $(N \times L)$ $N \times L$, wherein N is in the range of about 1.0 to about 8.0, ~~and~~ at least one conductive covering filament surrounding the elastic member, the conductive covering filament having a length that is greater than the drafted length of the elastic member, such that substantially all of an elongating stress imposed on the composite yarn is carried by the elastic member, and a stress-bearing member surrounding the elastic member, and wherein the stress-bearing member has a total length less than the length of the conductive covering filament and greater than, or equal to, the drafted length $(N \times L)$ of the elastic member, such that a portion of the elongating stress imposed on the composite yarn is carried by the stress-bearing member.

Claim 17: The composite yarn of claim 1 ~~wherein~~ wherein the stress-bearing member is made from an inelastic synthetic polymer yarn.

Claim 18: The composite yarn of claim 1 ~~wherein~~ wherein the stress-bearing member is wrapped in turns about the elastic member such that for each relaxed unit length (L) of the elastic member there is at least one (1) to about 10,000 turns of stress-bearing member.

Claim 19: The composite yarn of claim 1 ~~wherein~~ wherein the stress-bearing member is sinuously disposed about the elastic member such that for each relaxed unit length (L) of the elastic member there is at least one period of sinuous covering by the stress-bearing member.

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Claim 20: The composite yarn of claim ~~16~~ 1 wherein the stress-bearing member further comprises: a second inelastic synthetic polymer yarn surrounding the elastic member, and wherein the second inelastic synthetic polymer yarn has a total length less than the length of the conductive covering filament and greater than, or at most equal to, the drafted length of $(N \times L)$ of the elastic member, such that a portion of the elongating stress imposed on the composite yarn is carried by the second inelastic synthetic polymer yarns.

Claim 39: A fabric comprising a plurality of electrically conductive elastic composite yarns, wherein each electrically conducting elastic composite yarn comprises: an elastic member having a relaxed unit length L and a drafted length of $(N \times L)$ $N \times L$, wherein N is in the range of about 1.0 to about 8.0, and at least one conductive covering filament surrounding the elastic member, the conductive covering filament having a length that is greater than the drafted length of the elastic member, such that substantially all of an elongating stress imposed on the composite yarn is carried by the elastic member, wherein one or more of the composite yarns further comprise: an inelastic synthetic polymer yarn surrounding the elastic member, and wherein the inelastic synthetic polymer filament yarn has a total length less than the length of the conductive covering filament, such that a portion of the elongating stress imposed on the composite yarn is carried by the inelastic synthetic polymer yarn.

Election/Restrictions

2. Claims 1-7, 9-12, 14-15, 17-22 and 39 are allowable. Claims 8 and 13, previously withdrawn from consideration as a result of a restriction requirement, include all the limitations of an allowable claim. Pursuant to the procedures set forth in MPEP § 821.04(a), **the restriction requirement between species, as set forth in the Office action mailed on 7/12/2005, is hereby withdrawn** and claims 8 and 13 hereby rejoined and fully examined for patentability under 37 CFR 1.104. In view of the withdrawal of the restriction requirement, applicants are advised that if any claim including all the limitations of an allowable claim is presented in a continuation or divisional application, such claims may be subject to provisional statutory and/or nonstatutory double patenting rejections over the claims of the instant application. Once the restriction requirement is withdrawn, the provisions of 35 U.S.C. 121 are no longer applicable. See *In re Ziegler*, 443 F.2d 1211, 1215, 170 USPQ 129, 131-32 (CCPA 1971). See also MPEP § 804.01.

Allowable Subject Matter

3. Claims 1-15, 17-22 and 39 are allowed.

4. The following is a statement of reasons for the indication of allowable subject matter: The closest prior art appears to be USPN 4,777,789 to Kolmes in view of USPN 6,581,366 to Andrews, but the prior art fails to teach or suggest a stress-bearing member, or an inelastic synthetic polymer yarn, surrounding the elastic member and having a total length less than the length of the conductive covering filament. Kolmes '789 teaches first (24) and second (26) yarns that may comprise inelastic synthetic polymer filament yarns such as nylon yarns, but Kolmes discloses that the first (24) and second (26) yarns have a total length greater than the length of the conductive covering filament (22 or 22') (see Figures 1-2 and 5).

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5. Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Andrew T. Piziali whose telephone number is (571) 272-1541. The examiner can normally be reached on Monday-Friday (8:00-4:30).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Terrel Morris can be reached on (571) 272-1478. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

atp

ATP 7/26/06

**ANDREW T. PIZIALI
PATENT EXAMINER**